Chapter VI

HOME Program Lead-Based Paint Requirements

Introduction

Deteriorated lead-based paint, as well as lead-contaminated dust and soil, are the most common sources of exposure to lead. Lead poisoning can cause permanent brain damage, reduced intelligence, and behavior problems in children, as well as other health problems in both children and adults.

Young children are particularly vulnerable to lead poisoning. A large percentage of children with lead poisoning are in low-income families living in older homes with heavy concentrations of lead-based paint.

Lead-based paint requirements have become more stringent over the years due to increased understanding of the harmful effects of lead exposure on children and adults.

Importance of Addressing Lead-Based Paint

- Protecting children and families is the primary reason why HUD requires its grantees to address the presence of lead-based paint hazards.
- Other important reasons include:
 - Reducing Liability: Contractors and other parties can face lawsuits for failing to address lead-based paint hazards in a unit if a young child is poisoned. By taking action to reduce lead hazards, contractors can demonstrate that they are working to provide safe, suitable housing, thus reducing liability risks.
 - Reducing Insurance Costs: Contractors who take action to reduce lead hazards may be able to get more favorable insurance premiums.
 - ➤ <u>It's Required:</u> Title X of the Housing and Community Development Act mandates that lead hazards in housing receiving federal assistance be addressed. HUD published its Final Rule for lead on September 15, 1999 (24 CFR Part 35).

GENERAL REQUIREMENTS

Applicability - HUD lead rules apply to housing constructed before January 1, 1978. (The manufacture of lead-based paint was banned in 1978.)

Sanctions - Recipients and subrecipients of HOME funds that fail to comply with HUD's lead requirements are subject to available sanctions under the HOME program, and may be subject to other penalties authorized by law. Giving notice of a possible lead-based paint hazard does not relieve a property owner of the responsibility for evaluating and reducing lead hazards.

Major Exemptions

The following HUD lead-based paint requirements that do not apply are as follows:

- Rehabilitation that does not disturb a painted surface;
- Single Room Occupancy (SRO) units and other zero-bedroom dwelling units;
- Elderly and disabled housing, except where a child less than six years old resides or is expected to reside;
- Housing found by certified inspection to be free of lead-based paint; or
- Housing in which all lead-based paint has been properly identified and removed.

For a complete list of exemptions, see Part 35.115, included in the Appendix VI-A of this chapter.

<u>Records</u> - Records of each notice, evaluation, clearance, or abatement report are required to be kept for at least 3 years. Records applicable to ongoing lead-based paint maintenance and/or reevaluation shall be kept and made available for review until at least three years after such activities are no longer required.

The following are federal and state critical laws or regulations pertaining to Lead-Based Paint:

Federal Laws and Regulations

24 CFR Part 35 – Lead Based Paint Prevention in Certain Residential Structures (HUD)

Toxic Substances Control Act Section 406 - Requirements of Hazard Education Before Renovation for Target Housing

40 CFR Part 745 – Identification of Dangerous Levels of Lead (EPA)

State Laws and Regulations

Title 17 Sec. 35000 – Accreditation, Certification, and Work Practices for Lead-Based Paint and Lead Hazards (DHS)

CalOSHA Title 8 Sec. 1532.1 – Construction Safety Orders – Lead

CalOSHA Title 8 Sec. 5194 – Hazardous Communication

Civil Code 1102-1102.16 –Real Estate Lead Hazard Disclosure Requirements (HUD also has its own disclosure requirements. See next section.)

Proposition 65 – Safe Drinking Water and Toxic Enforcement Act of 1986.

Local Codes: Check with your city or county for applicable local codes.

Disclosure Requirements for Sale or Lease of Housing

1. <u>Applicability</u> - The HUD lead-based paint disclosure requirements set forth in **24 CFR 35.80–35.98** applies to all transactions to sell or lease housing constructed prior to 1978, also referred to as "target housing".

Exceptions to the lead-base paint disclosure requirements are as follows:

- Elderly Housing where children under six are not expected to reside;
- Zero-bedroom unit housing;
- Foreclosure sales on pre-1978 housing;
- Leases on housing found by certified inspection to be lead paint free;
- Leases of 100 days or less where no renewals or extensions can occur; or
- Renewals of existing leases in which the lessor has previously disclosed all lead information required.

2. Responsibilities of Sellers and Lessors

The seller or lessor must provide and disclose the following information:

- <u>Lead Information Pamphlet</u> provide the purchaser or lessee with an EPA-approved lead hazard information pamphlet.
- <u>Disclosure</u> disclose to the purchaser or lessor the presence of any known lead-based paint and/or lead-based paint hazards in target housing, including such information as:

The basis for this determination:

The location of lead paint/hazards; and

The condition of the painted surfaces.

Records and Reports

- The seller or lessor must also disclose the existence of any available records or reports pertaining to lead paint and/or lead paint hazards in the housing, and provide the purchaser or lessee with any of these records or reports available to the seller.
- This requirement applies to information pertaining to lead paint/lead hazards in common areas, as well as in other dwelling units within multifamily housing.

<u>Post-Offer Disclosure</u> - If any lead disclosure occurs <u>after</u> an offer to purchase or lease has been made, the seller or lessor shall:

- Complete the required lead disclosure activities prior to accepting the offer; and
- Allow the purchaser or lessee the opportunity to review the information provided at disclosure, and amend the offer.

3. Opportunity to Conduct Evaluation

The seller must allow the purchaser 10 days to conduct a risk assessment or inspection for lead paint/lead hazards before any obligation to purchase.

4. Certification and Acknowledgement of Disclosure – Contract Language

Contracts to sell or lease target housing must have an attachment that contains the following:

- Lead Warning Statement See 24 CFR 35.92 in Appendix VI-A of this chapter.
- <u>Disclosure Statement</u> A statement by the seller/lessor disclosing the presence of known lead paint and/or lead paint hazards in the housing, or indicating that they have no such knowledge. Also included should be any additional information regarding the basis for such determinations, the location of lead paint/lead paint hazards, and the condition of painted surfaces.
- Records and Reports Provided The contract must also contain a list of records and reports available to the seller/lessor that have been provided to the purchaser/lessee regarding the existence of lead paint/lead paint hazards in the housing. If no such records or reports are available, the contract shall indicate this.
- <u>Confirmation</u> A statement by the purchaser/lessee confirming the receipt of all of the required disclosure information, and <u>in sales transactions</u>, confirming that he/she has either received an opportunity to conduct a risk assessment or lead inspection, or waived this opportunity.
- Agents Where there is an agent acting on behalf of the seller/lessor, the contract
 must also contain a statement that the agent has informed the seller/lessor of their
 obligations and the agent is aware of his/her duty to ensure compliance with
 applicable lead disclosure requirements.
- <u>Signatures</u> All of the parties to the contract, including the agent, must sign and date the attachment certifying the accuracy of their statements.
- <u>Retention</u>-The seller/lessor shall retain a copy of the completed contract attachment for at least three years from the date of the sale/commencement of the leasing period.

REQUIREMENTS FOR REHABILITATION ACTIVITIES (Owner-Occupied and Rental)

The requirements of this section apply to HOME-funded rehabilitation projects set up in the Integrated Disbursement and Information System (IDIS) after <u>January 10, 2002</u>.

<u>Lead Hazard Reduction Requirements</u> - Lead hazard reduction requirements vary, depending on the amount of federal dollars provided for rehabilitation, defined as hard costs, excluding lead hazard reduction costs. [To calculate rehabilitation dollars, see 24 CFR 35.915 (Appendix VI-A-6).]

NOTE:

When a property owner applies for a rehab loan, this is a good time to provide information about potential lead hazards in the home, and to explain the lead hazard reduction requirements at different rehab amounts. Provide applicants with HUD's pamphlet, "How to Protect Your Family from Lead". While not required, consider having the applicant sign a statement signifying the pamphlet was received.

Federally-Assisted Rehabilitation Amounts

Up to \$5,000 per unit -- If federal assistance for rehab is no more than \$5,000 per unit, and work will disturb paint, the following is required:

1. Paint Testing - To determine the presence of lead-based paint, in accordance with 24 CFR 35.1315. The presence of lead-based paint can also be "presumed," in accordance with 24 CFR 35.120.

Performed by: Certified Lead Inspector/Assessor

<u>Training Required:</u> Successful completion of DHS Lead Inspector/Assessor course and state certification exam, with related experience.

2. Notice of Lead Hazard Evaluation or Presumption

- Must be provided to occupants within 15 days of making a "presumption of lead-based paint," or of receiving a lead hazard evaluation report that notes the presence of lead-based paint.
- See 24 CFR 35.125 (see Appendix VI-A-4), and DHS Form 8552 (Appendix VI-E), for more information on the required content, format, and distribution of notices. Note: Form 8552 must be completed even if no lead-based paint is found.

3. Lead Hazard Reduction

- If lead-based paint is found, then any paint disturbed during rehab must be repaired, and safe work practices and worksite clearance must be performed.
 - ➤ <u>Safe Work Practices</u> are practices intended to minimize exposure to lead during rehabilitation activities. Includes standards for safe paint removal (24 CFR 35.140), specialized cleaning (24 CFR 35.1350), and occupant and workplace protections (24 CFR 35.1345). Safe Work Practices are required when performing any maintenance or renovation work that disturbs lead-based paint.
 - ➤ <u>Clearance</u> is activities undertaken to determine that lead hazard reduction is complete, and that no lead-dust or soil hazards remain in the areas of concern. Includes visual assessment, and dust and soil sampling. Clearance report required. (24 CFR 35.1340 and DHS Form 8552)
- Provide notice to residents 5 days before lead hazard reduction work is to begin. (See DHS Form 8551 Appendix VI-F).
- See 24 CFR 35.1345 for relocation requirements during lead hazard reduction activities (Appendix VI-A-7).

REQUIRED TRAINING

To Make Repairs - HUD "Safe Practices" Training

<u>Clearance Examinations</u> - must be performed by a certified Lead Inspector/Assessor (24 CFR 35.1340).

4. Notice of Hazard Reduction Activity (completion notice)

- Must be provided no more than 15 days after lead hazard reduction activities have been completed.
- See 24 CFR 35.125 and DHS Form 8552 for more information on the required content, format, and distribution of notices.
- Notices should be updated upon any reevaluation, and if any additional lead hazard reduction activities are undertaken.

5. Ongoing Maintenance of Rental Properties

- Rental property owners shall incorporate on-going lead paint maintenance activities into regular building operations in accordance with the specific requirements of 24 CFR 35.1355 during the required period of affordability.
- On-going maintenance must include a <u>visual assessment</u> for deteriorated paint surfaces, <u>stabilization</u> of deteriorated paint surfaces (if found), and <u>clearance</u>.

REQUIRED TRAINING

<u>Visual Assessment</u> - HUD "Visual Assessment Training". Is available on-line at www.hud.gov/lea/training/visualassessment/h00100.htm

Paint Stabilization – (24 CFR 35.1330)

- a) DHS-certified Lead Worker or Lead Supervisor Course; OR
- b) OSHA Hazardous Communication Training, with supervision by a certified Lead Supervisor; <u>OR</u>
- c) OSHA Hazardous Communication Training, and HUD lead maintenance course.

<u>Clearance</u> - must be performed by a certified Lead Inspector/Assessor (24 CFR 35.1340).

• On-going maintenance is <u>not</u> required if an inspection or clearance report indicates that no lead paint is present, <u>and</u> if a required risk assessment indicates there are no lead dust or soil hazards.

\$5,001-\$25,000 per unit -- If federal assistance for rehab is more than \$5,000 and up to \$25,000 of hard construction costs per unit and the work will disturb the paint, the following shall apply:

1. Paint Testing - Same as for rehabilitation less than \$5,000 per unit.

2. Risk Assessment

- Before rehabilitation begins, do a risk assessment in the units receiving federal assistance, common areas servicing those units, and exterior painted surfaces, in accordance with 24 CFR 35. 1320(b).
- A <u>risk assessment</u> is a formal on-site investigation to determine the location, nature, and severity of lead paint hazards.

Performed by: Certified Lead Inspector/Assessor

<u>Training Required:</u> Successful completion of DHS Inspector/Assessor course and state certification exam, with related experience.

• A risk assessment does <u>not</u> need to be performed if a presumption of lead paint has been made.

3. Interim Controls

- Perform interim controls of all identified lead paint hazards, including any created as a result of rehabilitation, in accordance with 24 CFR 35.1330.
- <u>Interim controls</u> are measures that temporarily reduce human exposure to lead hazards. They include: repairs, painting, temporary containment, specialized cleaning, ongoing maintenance, and education of residents and management about reducing lead exposure.
- Provide 5-day notice to residents before work begins (DHS Form 8551) (Appendix VI-F).

OR

- Lead Presumption/Standard Treatments Where a presumption of lead paint has been made, Standard Treatments shall be performed in accordance with 24 CFR 35.1335. <u>Standard Treatments</u> include paint stabilization, covering rough, pitted, or porous horizontal surfaces, correcting dust-generating conditions, treating bare soil, and performing safe work practices and clearance.
- Provide 5-day notice to residents before work begins (DHS Form 8551) (Appendix VI-F).

REQUIRED TRAINING

Interim Controls or Standard Treatments (24 CFR 35.1330 (a) (4))

- a) DHS-certified Lead Worker or Lead Supervisor Course; OR
- b) OSHA Hazardous Communication Training, with supervision by a certified Lead Supervisor; OR
- c) OSHA Hazardous Communication Training, and HUD lead maintenance course.

- See 24 CFR 35.1345 for relocation requirements during lead hazard reduction activities (see Appendix VI-A-7).
- **5.** Clearance of dwelling units, common areas, and exterior areas in accordance with 24 CFR 35.1340(b).
- **6. Notice of Lead Hazard Reduction (completion notice)** -- Same as for rehabilitation less than \$5,000 per unit.
- **7. Ongoing Maintenance of Rental Properties --** Same as for rehabilitation less than \$5,000 per unit.

Over \$25,000 per unit -- If federal assistance for rehab is more than \$25,000 per unit of hard construction costs, the following shall apply:

- **1. Paint Testing--** Same as for rehabilitation less than \$5,000 per unit.
- 2. Risk Assessment Same as for rehabilitation between \$5,001-\$25,000.
- 3. **Notice of Lead Evaluation or Presumption -** Same as for rehabilitation less than \$5,000 per unit.

4. Abatement

- Abate all lead paint hazards identified as a result of the paint testing or risk assessment, as well as any hazards created from the rehabilitation work, in accordance with 24 CFR 35.1325. (However, use of Interim Controls is acceptable on exterior surfaces not disturbed by rehabilitation.)
- Provide a minimum of 5 days notice to residents before beginning abatement (DHS Form 8551). (Appendix VI-F)

Abatement

As defined by HUD, Abatement is the "permanent" (20 years or more) elimination of lead-based paint or lead-based paint hazards. Abatement includes the following activities:

- Paint removal;
- Enclosure or encapsulation of lead paint;
- Replacement of components or fixtures painted with lead paint;
- Removal or permanent covering of soil lead hazards; or
- All preparation, disposal, and post-abatement clearance activities associated with the above.

NOTE: Abatement Activities Requirements

<u>Performed by:</u> Certified lead construction worker, under the supervision of a certified lead abatement Project Monitor and Supervisor.

Training Required:

<u>Worker:</u> Lead Related Construction Training, (LRC), with DHS certification. Supervisor: LRC Training and Lead Supervisor Training, with DHS certification.

- See 24 CFR 35.1345 for relocation requirements during lead hazard reduction activities (Appendix VI-A)
- **5.** Clearance Shall be performed in accordance with 24 CFR 35.1340(a).
- **6. Notice of Hazard Reduction (completion notice) --** Same as for rehabilitation of less than \$5,000 per unit.
- **7. On-going Maintenance of Rental Properties** -- Same as for rehabilitation of less than \$5,000 per unit.

Acquisition Of Existing Housing Requirements (First-time Homebuyer and Rental Housing)

The requirements of this section apply to HOME-funded acquisition projects set up in the Integrated Disbursement and Information System (IDIS) after January 10, 2002.

State Recipients and CHDOs are required to conduct the following activities for dwellings purchased with HOME funds, including common areas servicing the unit(s), and the exterior surfaces of the units or the building in which the unit is located.

1. Visual Assessment of all painted surfaces in order to identify deteriorated paint. "Deteriorated Paint" is any exterior or interior paint or other coating that is peeling, chipping, chalking, cracking, or otherwise damaged or separated from the substrate.

NOTE:

A visual assessment for lead-based paint hazards is most appropriately done during the site inspection normally conducted by the State Recipient or CHDO. Documenting areas where there is deteriorated paint is recommended. Persons conducting visual assessments must have completed HUD's Visual Assessment Training. Training can be obtained online at www.hud.gov/lea/training/visualassessment/h00100.htm. No certification or prior experience required.

Federal and state disclosure laws also give the buyer ten days to conduct their own lead inspection or risk assessment, and require the seller to disclose any known lead-based paint or lead paint hazards (see the section of this chapter on required disclosures for more details).

- **2. Notice of Lead Hazard Evaluation or Presumption** -- Same as for rehabilitation of less than \$5,000 per unit.
- 3. Pamphlet In accordance with 24 CFR 13.130 (Appendix VI-A), the State Recipient or CHDO is required to provide each resident of a dwelling unit containing lead-based paint a copy of HUD's lead information pamphlet upon notification of lead hazard reduction activities or at move-in, unless it can be shown that this information was already provided at loan prequalification or as part of a tenant education program connected to on-going lead maintenance activities in rental housing.
- **4. Paint Stabilization -** Includes repairs to any defect in the substrate that is causing the paint to deteriorate, removing loose paint and other material from the defective surfaces, and applying new protective coatings or paint.
- **5.** Clearance Activities undertaken after lead hazard reduction to determine that no lead-dust or soil hazards remain in the areas of concern, including visual assessment and dust and soil sampling. In <u>vacant units</u>, clearance must be achieved before occupancy. In <u>occupied units</u>, clearance must be achieved immediately after the receipt of HOME funds.

REQUIRED TRAINING

Paint Stabilization (24 CFR 35.1330).

- a) DHS-certified Lead Worker or Lead Supervisor Course; OR
- b) OSHA Hazardous Communication Training, with supervision by a certified Lead Supervisor; OR
- c) OSHA Hazardous Communication Training, and HUD lead maintenance course.

Clearance - must be performed by a certified Lead Inspector/Assessor (24 CFR 35.1340)

See 24 CFR 35.1345 for relocation requirements during lead hazard reduction activities (Appendix VI-A-7).

- **6. Notice of Hazard Reduction (completion notice)** Same as for rehabilitation of less than \$5,000 per unit.
- **7. On-going Maintenance of Rental Properties** Same as for rehabilitation of less than \$5,000 per unit.

TENANT-BASED RENTAL ASSISTANCE

The requirements of this section apply to HOME TBRA funds set up in the Integrated Disbursement and Information System (IDIS) after <u>January 10, 2002</u>.

Applicability: Children Under 6 - Lead hazard evaluation and reduction requirements under this section apply to dwelling units occupied or to be occupied by children under age six, the common areas servicing such units, and the exterior painted surfaces associated with the unit and its common areas. Common areas include areas through which residents pass to gain access to a unit, and other areas frequented by resident children less than six years old, including on-site play areas and child care facilities.

Activities at Initial and Periodic Inspection

1. Visual Assessment -- Same as for acquisition projects.

REQUIRED TRAINING

Persons conducting visual assessments must receive HUD Visual Assessment Training.

Training can be obtained on-line at www.hud.gov/lea/training/visualassessment/h00100.htm.

No certification or prior experience required.

- **2. Notice of Lead Hazard Evaluation or Presumption** -- Same as for rehabilitation of less than \$5,000 per unit.
- **3. Pamphlet** Same as for acquisition projects.

4. Paint Stabilization

• The owner is required to stabilize deteriorated paint in accordance with the provisions of 24 CFR 1330(a) and (b) <u>before occupancy</u> by a tenant receiving HOME rental assistance.

- If such occupancy began <u>prior</u> to a periodic inspection, paint stabilization must be completed within 30 days of notifying the owner of the results of the visual assessment.
- Paint Stabilization includes repairs to any defect in the substrate that is causing the paint to deteriorate, removing loose paint and other material from the defective surfaces, and applying new protective coatings or paint.
- **5.** Clearance Shall be performed in accordance with 24 CFR 35.1340(b).

REQUIRED TRAINING

Paint Stabilization (24 CFR 35.1330)

- a) DHS-certified Lead Worker or Lead Supervisor Course; OR
- b) OSHA Hazardous Communication Training, with supervision by a certified Lead Supervisor; OR
- c) OSHA Hazardous Communication Training, and HUD lead maintenance course.

<u>Clearance</u> - must be performed by a certified Lead Inspector/Assessor. (24 CFR 35.1340)

See 24 CFR 35.1345 for relocation requirements during lead hazard reduction activities (Appendix VI-A-7).

- **6. Notice & Pamphlet** Same as for acquisition projects.
- **7. On-going Maintenance of Rental Properties** Same as for rehabilitation projects of less than \$5,000.

Requirement if a Child Has an Elevated Blood-Lead Level

Applicability- Applies to HOME tenant-based rental assisted units. The following actions are required:

1. Risk Assessment

- Within 15 days after being notified by a public health department or other medical
 care provider that a child under six receiving tenant-based rental assistance has an
 elevated blood-lead level, the State Recipient shall do a risk assessment of the
 unit in which the child lived at the time the blood sample was taken, including the
 common areas servicing that unit.
- If notified of an EBL child by a medical professional, the owner shall notify the public health department within 5 working days.

- If notification of an EBL child is received from a source other than a medical provider or public health department, the State Recipient shall immediately verify this information with the public health department or medical provider before doing a risk assessment.
- The risk assessment shall be conducted in accordance with 24 CFR 35.1320(b).
 The requirement to conduct a risk assessment still applies if another assisted
 household is now occupying the unit, or is expected to occupy the unit. The
 results of the risk assessment shall be provided to the owner immediately upon its
 completion.

2. Hazard Reduction

- The property owner shall complete lead abatement (24 CFR 35.1325), or interim control activities (24 CFR 35.1330), within 30 days of receiving the risk assessment report from the State Recipient, or an evaluation from the public health department.
- Hazard reduction is complete when clearance has been achieved (24 CFR 35.1340), or when the public health department certifies that the lead hazard reduction is complete. Failure to complete these activities as required constitutes a Housing Quality Standards Violation.
- **3. Notice to Residents** The owner shall notify building residents of any evaluation or lead hazard reduction activities. (See 24 CFR 35.125 (Appendix VI-A) and DHS Forms 8552 and 8551 (Appendix VI-E, & VI-F), for information on required content, format, and distribution of notices.)
- **4. Data Collection and Record Keeping** At least quarterly, the owner shall attempt to coordinate with the public health department(s) in the jurisdiction to identify EBL children who may be receiving HOME TBRA, and perform lead hazard evaluation and reduction activities as required by this section.

Summary Of Required Personnel

HUD and DHS require the following certified personnel to comply with lead hazard reduction requirements.

Certified Lead Inspector/Assessor – performs lead hazard evaluations, including inspections, risk assessments, and clearance examinations. (See Title 17, Article 13 in Appendix VI-B for specific training and work experience requirements.)

Certified Lead Worker – performs lead-related construction work under the supervision of a Certified Lead Supervisor. To become a Certified Lead Worker, an individual must successfully complete an accredited Lead Related Construction Worker (LRC) course. (No other experience is necessary.)

Certified Lead Supervisor - responsible for implementing lead-related construction work, and enforcing work practices that ensure work safety. (See Title 17, Article 13 in Appendix VI-B for specific training and work experience requirements.)

Additional Resources

HUD Title 24, Part 35-Lead Paint Poisoning Prevention in Certain Residential Areas can be retrieved at: http://frwebgate.access.gpo.gov/cgi-bin/multidb.cgi

See www.dhs.ca.gov/childlead for information on DHS-certified lead training courses in your area.

Non-Certified Personnel Also Needed

Visual Assessor – conducts visual assessments of paint when required.

Visual assessment training can be obtained from HUD on-line at www.hud.gov/lea/training/visualassessment/h00100.htm. No certification or prior experience required.

How To Find Lead-Trained Personnel

<u>Department of Health Services</u> – Index of Certified Lead Professionals, found at **www.dhs.ca.gov/childlead** Listed geographically.

<u>HUD</u> – Nationwide listing of certified lead professionals, found at <u>www.leadlisting.org</u>.

Yellow Pages - Look under "Lead Removal and Abatement" and "Lead Testing".

<u>Note</u>: In California, only individuals are certified. Companies and contractors cannot represent themselves as "certified" contractors or lead-abatement companies.

<u>Developing a List</u> –Each program should develop its own list of qualified and certified individuals. This can be done through:

- Requests for Qualification (Bidders List);
- RFP process can be done on a project-by-project basis, or a general basis to solicit set costs for activities. (Developing a cost list may facilitate and expedite smaller jobs);
- Training local contractors; or
- Training in-house personnel.